REMARKS/ARGUMENTS

Claims 1-12 are pending in this application with claims 1, 5 and 9 being amended by this response.

Applicant wishes to thank the Examiner for the courtesy extended in the telephone interview on Wednesday, July 11, 2007. In this interview the claim amendments made by this response were discussed. The Examiner agreed to consider the amendments that are reflected in this response and indicated that these amendments appeared to overcome the prior art of record and that no new issues were raised by the amendments.

Claim 1 has been amended to clarify that a currently selected video input is determined from one of the at least two video inputs, where "each video input [is] able to receive a video signal **originating** from a respective one of a plurality of **external** input sources." Independent claims 5 and 9 have been similarly amended. Support for these amendments can be found throughout the Specification and specifically on Page 4, lines 2-24; Page 5, lines 24-28; and Fig. 1. The Office Action argues that the two tuners (Fig. 1, reference no. 10A and 10B) in the Reitmeier cited reference are equivalent to the "plurality of input sources" described in the present claimed invention. Applicant respectfully disagrees and respectfully submits that a tuner is not equivalent to an input source. However, in order to show further distinction and clarity, the claims have been amended to recite that "each video input [is] able to receive a video signal **originating** from a respective one of a plurality of **external** input sources." Thus, it is respectfully submitted that no new matter has been added by these amendments.

Rejection of Claims 1-2, 5-6, and 9-10 under 35 USC § 102(b)

Claims 1-2, 5-6 and 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Reitmeier (International Patent Application No. WO 99/16247). Applicant respectfully traverses the rejection.

The present claimed invention provides a method and apparatus of performing a channel search in a video processing apparatus having at least two video inputs, each video input able to receive a video signal **originating** from a respective one of a plurality of **external** input sources and coupled to a display device. The present claimed invention determines the currently selected video input from one of the at least two video inputs and detects and updates a channel list of available channels received from the source connected to the currently selected video input. Independent claims 1, 5 and 9 each include similar features and thus all arguments presented herein apply to each claim.

Common video processing systems have multiple input types. Disadvantageously, although a tuner can only use one input at a time, in performing an available channel search, current algorithms search all the inputs for all available channels. However, searching multiple inputs, when only a single input can be used, may be overly iterative and take up a large amount of time. The present claimed invention understands that a tuner can only utilize one input at a time. Thus, the present claimed invention performs an active channel search only on the active or selected input.

Reitmeier describes a method and apparatus for masking program selection latency in an MPEG-like information stream receiver. In a channel scanning mode of operation, a plurality of channels are retrieved from one system stream. The apparatus stores intra-frame (I-frame) data for adjacent channels received from a single RF source feed coupled to two different tuners. In order to accomplish this, Reitmeier's apparatus determines the channels which a user will most likely select when changing channels based upon user habits and channels surrounding the currently selected channel. Then, the apparatus stores I-frame data from the channels determined most likely to be selected for a channel change.

The Office Action asserts that Reitmeier discloses an apparatus having two video inputs, each having a respective input source. Applicant respectfully disagrees. Specifically, referring to Figure 1, Reitmeier discloses a **single input source**—RF

antenna 5. The "RF source 5 (illustratively, an antenna or cable television distribution network), provides a radio frequency (RF) signal...coupled to a first a tuner 10A and a second tuner 10B" (Page 5, lines 4-9). Essentially, Reitmeier couples a single input source to two tuners to attain two signal streams. This is wholly unlike the present claimed invention, which has at least two video inputs originating from respective input sources connected thereto.

The Office Action further asserts that in Reitmeier, Fig. 1, reference no. 15A and 15B are equivalent to the "at least two video inputs" of the present claimed invention and Fig. 1, reference no. 10A and 10B are equivalent to the respective one of a plurality of input sources, as in the present claimed invention. Applicant respectfully disagrees. As described in Reitmeier, Fig. 1, reference no. 10A and 10B are two **tuners** (see Page 5, lines 8-9). The tuners are coupled to RF television signals originating from "an RF **source** (illustratively, an antenna or cable television distribution network)" (Page 5, lines 4-5). Thus, Fig. 1, reference no. 10A and 10B of Reitmeier are merely **tuners** that are attached to a single RF source that "provides a radio frequency (RF) signal" (Page 5, line 5). A tuner can be defined as "something used for tuning; *specifically* **:** the part of a receiving set that converts radio signals into audio or video signals" (Merriam-Webster Dictionary Online; http://www.m-w.com/dictionary/tuner). Therefore, a tuner is wholly unlike multiple **external** input sources, as in the present claimed invention. Furthermore, the two tuners, 10A and 10B in Reitmeier may contain "inputs" that receive signals originating from RF source 5; however, the RF source 5 is the "external input source." Hence, Applicant respectfully submits that the Office Action makes critical errors in understanding and interpreting the function of the tuner in Reitmeier. As argued above, tuners 10A and 10B may contain an input for receiving the RF signal originating from the RF source 5; however, the **external input source** itself is the single RF source and not the tuner. The RF source in Reitmeier may supply a signal to the tuners; however, the **external** input source is the RF source and not the tuner(s). Reitmeier defines that the "RF source 5 ... [is] an antenna or cable television distribution network" (Page 5, lines 4-5). Hence, the one external input source in Reitmeier is defined as the "RF source 5" and since Reitmeier merely describes supplying RF signals to the tuners, Applicant

respectfully submits that tuners 10A and 10B of Reitmeier are NOT equivalent to "a **plurality** of external input sources" as recited in the present claimed invention.

Additionally, the present claimed invention recites "a plurality of **external** input sources" as seen in Fig. 1 of the Specification. This is nowhere shown or disclosed in Reitmeier in which the tuners are erroneously interpreted by the Office Action as "input sources." Applicant respectfully submits that two "tuners" (as shown in Reitmeier) are not equivalent to the "external input sources" described in the present claimed invention. Furthermore, the amended claim recitation of "a video signal **originating** from a respective one of a plurality of **external** input sources" is neither disclosed nor suggested by Reitmeier. Rather, in Reitmeier, there is only a **single source** that produces the **same** video signal which is split and provided to two tuners and then demodulated by two demodulators. Therefore, it is respectfully submitted that Reitmeier neither discloses nor suggests "a video processing apparatus having at least two video inputs, each video input able to receive a video signal originating from a respective one of a plurality of external input sources" as recited in the present claimed invention.

Reitmeier describes that the "radio frequency (RF) signal ... [comprises] a plurality of television signals modulated according to a vestigial sideband (VSB), quadrature amplitude modulation (QAM) or other suitable modulation scheme" (Page 5, lines 5-8). However, the video signals (or RF signals) that are provided to each tuner in Reitmeier originate from the same RF source. Reitmeier neither discloses nor suggests "at least two video inputs" where "each video input [is] able to receive a video signal originating from a respective one of a **plurality** of external input sources" as recited in claim 1 of the present invention. In an exemplary manner, the "at least two video inputs" can be any two of 16, 26, 28 and 30 in Fig. 1 (see Page 4, lines 9-25 of the Specification). Furthermore, the "plurality of external input sources" may be "antennas, community cable systems, Direct Broadcast Satellite (DBS) systems, or the like" (Specification, Page 1, lines 20-21). In one example, video "input 26 is signified as [being] coupled with a CATV or cable system via cable or communication input line 34" (Page 4, lines 14-15). Furthermore, "signal input 16 is

shown coupled to DBS 14" (Page 4, line 22). Therefore, all the video signals originate from a respective one of a plurality of external input sources. This is nowhere suggested or disclosed by Reitmeier in which there is only **one single source**. Therefore, Reitmeier provides no suggestion or disclosure of having "at least two video inputs, each video input able to receive a video signal originating from a respective one of a **plurality of external input sources**" as recited in the present claimed invention.

Applicant also respectfully disagrees with the Office Action's interpretation of demodulators 15A and 15B (shown in Fig. 1) of Reitmeier. The Office Action erroneously argues that these two demodulators are equivalent to the "two video inputs" recited in the present invention. The demodulators 15A and 15B merely demodulate signals IFA and IFB, respectively, output by tuners 10A and 10B, respectively. However, these demodulators are not equivalent to the two video inputs of the present claimed invention, in which "each video input [is] able to receive a video signal originating from a respective one of a plurality of external input sources" as recited in the present invention. Each demodulator receives a signal from the same source tuned by its respective tuner. This is wholly unlike the present claimed invention which recites "having at least two video inputs, each video input able to receive a video signal originating from a respective one of a plurality of external sources."

The Office Action further asserts that Reitmeier discloses determining the current user selected video input from one of at least two video inputs (where "each video input [is] able to receive a video signal originating from a respective one of a plurality of external input sources"). Applicant respectfully disagrees. Reitmeier describes that "the first switch 20 may couple either input stream SA, SB to either (or both) outputs O1, O2" (Page 5, lines 28-29). "One tuner/demodulator pair (i.e., the main tuner/demodulator pair) provides a system stream of a presently tuned channel to the main transport demultiplexer 35 (i.e., the presently tuned channel), **controller 70 causes** switch 20 to couple the output stream from the other tuner/demodulator pair (i.e., scanning tuner/demodulator pair) to the auxiliary demux and process unit

30" (Page 12, lines 18-23). Subsequently, the main transport demultiplexer 35 "extracts a particular program stream from the received system stream S01" (Page 6, lines 7-8) and processing unit 30 "operates in a picture-in-picture mode, **a channel scanning mode** or a channel changing mode" (Page 6, lines 16-17). Essentially, Reitmeier describes the user selection of a first particular program stream and the automatic system selection of a second unselected stream to perform the update of the channel list where both program streams originate from a **single** RF input source. This is unlike the present claimed invention which recites "determining by a user a currently selected video **input** from one of the at least two video **inputs**" wherein "each video input [is] able to receive a video signal originating from a respective one of a plurality of external input sources" as recited in the present claimed invention.

As described above, Reitmeier describes the user selection of a first particular program stream and a system selection of a second program stream. However, the two streams chosen in Reitmeier are tuned from a **single source**. Thus, Reitmeier merely describes a user selection of one particular program stream from among **multiple program streams from a single source**. This is wholly unlike the present claimed invention in which a video input is selected from at least two video inputs received from external video sources. Therefore, it is respectfully submitted that Reitmeier neither discloses nor suggests "**determining by a user a currently selected video input** from one of the at least two video inputs" wherein "each video input [is] able to receive a video signal originating from a respective one of a plurality of external input sources" as recited in the present claimed invention.

The Office Action asserts further that Reitmeier updates a channel list of all channels available for the selected input source. Applicant respectfully disagrees. As discussed in the previous response, Reitmeier describes a scan list in Table 1 (see Page 15, lines 26-27). The scan list is a list of the most likely channels to be selected next determined by the receiver based upon user habits and channels surrounding the currently selected channel. This is not a list of **all** available channels. Rather, Reitmeier is concerned with keeping a **small list of channels**. Reitmeier is unable to efficiently store and update all channels due to controller and memory constraints.

Therefore, it is respectfully submitted that Reitmeier neither discloses nor suggests "updating a channel list **of all channels available** for the currently selected video input" as recited in claim 1 of the present claimed invention.

In view of the above remarks, Applicant respectfully submits that there is no 35 USC 112 compliant enabling disclosure in Reitmeier that anticipates the present claimed invention. As claims 1, 5 and 9 are similar in scope, all above arguments apply to each of these claims. Accordingly, as claims 2, 6 and 10 are dependent on independent claims 1, 5 and 9 respectively, Applicant respectfully submits that these claims are also not anticipated by Reitmeier. Therefore, Applicant further respectfully submits that this rejection has been satisfied and should be withdrawn.

Rejection of Claims 3-4, 7-8, and 11-12 under 35 USC § 103(a)

Claims 3-4, 7-8, and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reitmeier in view of Wugofski (International Patent Application No. WO 99/35833). Applicant respectfully traverses this rejection.

Wugofski describes a convergence system displaying channel banners that assume the same form regardless of the source on a display. The system includes a television component for receiving a plurality of inputs from a plurality of sources. Each banner includes a plurality of fields. The information contained within fields of the channel banner change with time. A plurality of source devices is available from which the system described by Wugofski can download program data to be displayed on the channel banners.

The Office Action asserts that Wugofski discloses the principles of the present claimed invention. However, Wugofski, similarly to Reitmeier, neither discloses nor suggests "detecting available channels from various possible channels received from the source connected to only the currently selected video input" as recited the present claimed invention. Additionally, Wugofski, similarly to Reitmeier, neither discloses nor suggests "updating a channel list of all channels available for the currently selected input" as recited in the present claimed invention. Rather, Wugofski is only

concerned with placing information banners having the same form on a display regardless of the input source.

Furthermore, Wugofski is not concerned with the problem addressed (and corrected) by the present claimed invention. Specifically, Wugofski is concerned with extracting channel banner information and uniformly displaying it regardless of the input source on a display in a convergence system. Wugofski is not concerned with performing an optimized channel search, as in the present claimed invention.

Additionally, there is no reason or motivation to combine the systems of Reitmeier and Wugofski, as suggested by the Office Action. Reitmeier is concerned with masking the latency time experienced while changing channels in a television receiver. Wugofski describes a system for uniformly displaying channel banner information, regardless of the input. Reitmeier's apparatus consists of one RF input source coupled to two tuners in order to retrieve channels for user viewing, such as in a picture-in-picture (PIP) application as described on Page 7, line 28 to Page 8, line 11. To perform a channel scan or search, Reitmeier does not retrieve channel banner information, as described by Wugofski. Moreover, Wugofski's system is not concerned with scanning channels but with obtaining event information and displaying the necessary fields after selecting a source via a remote control device, as shown in Fig. 2A and Fig. 7. Thus, Wugofski and Reitmeier are concerned with completely unrelated problems and provide unrelated solutions to their respective problems. Therefore, there is no reason or motivation to combine these references. Furthermore, neither Reitmeier nor Wugofski address the objective of the present claimed invention which is to reduce the time necessary to complete the channel acquisition process in a system with two or more inputs. Furthermore, there is no reason or motivation to combine the systems of Reitmeier and Wugofski, as Reitmeier uses a single RF source and Wugofski uses a variety of sources.

However, even if the systems of Reitmeier and Wugofski were combined, the combined system would not produce the present claimed invention. Specifically, the combined system would be identical to the problems in the prior art, addressed (and

corrected) by the present claimed invention. Specifically, the combined system would scan both input sources when performing the available channel search. As both the individual systems of Reitmeier and Wugofski are not concerned with a user determination of a selected input source, it is respectfully submitted that the combined system of Reitmeier and Wugofski neither discloses nor suggests "determining by an user a currently selected video input from one of the at least two video inputs" and "detecting available channels from various possible channels received from the source connected to only the currently selected video input" as recited in claim 1 of the present claimed invention. As claims 5 and 9 are similar in scope to claim 1, these claims are also allowable for the same reasons as discussed above with respect to claim 1. Furthermore, as claims 3-4, 7-8 and 11-12 are dependent on independent claims 1, 5 and 9 respectively, the above remarks concerning the independent claims are applicable to these claims as well.

In view of the above remarks, Applicant respectfully submits that Reitmeier in view of Wugofski provide no 35 USC 112 compliant enabling disclosure that makes claims 1, 5 and 9 unpatentable. Accordingly, as claims 3-4, 7-8 and 11-12 are dependent on claims 1, 5 and 9, respectively, it is respectfully submitted that these claims are also patentable over Reitmeier in view of Wugofski. Therefore, Applicant further respectfully submits that this rejection has been satisfied and should be withdrawn.

Having fully addressed the Examiner's rejections, it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Accordingly then, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the applicant's attorney at the phone number below, so that a mutually convenient date and time for a telephonic interview may be scheduled.

No fee is believed due. However, if a fee is due, please charge the fee to Deposit Account 07-0832.

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